# tomopal®

# 10ml Glass Syringe
## with metal luer slip
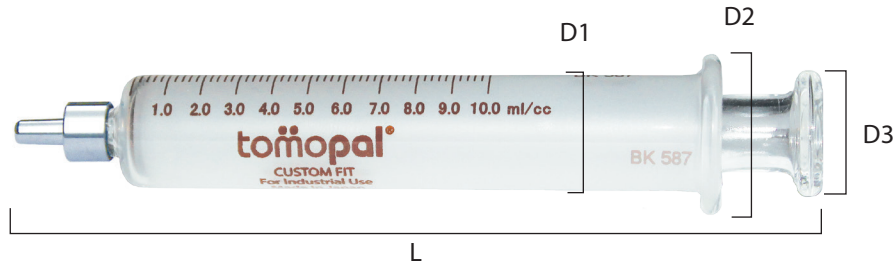


| Tomopal Part # | 140-2010 |
|---|---|
| **Piston Outside Diameter:** | 15.15 mm ± 0.15 mm |
| **D1) Barrel Diameter Outside:** | 18.35 mm ± 0.35 mm |
| **D2) Barrel Collar Diameter:** | 26.20 mm ± 0.75 mm |
| **D3) Piston Collar Diameter:** | 19.95 mm ± 0.60 mm |
| **L) Length:** | 126.50 mm ± 0.50 mm |
| **Increment:** | 0.2 ml |
| **Volume:** | 10.0 ml  ±1.5% of volume |

## Features:

- The syringe is made from heat resistant borosilicate glass.
- The material and construction is resistant to breakage from shock and sudden temperature changes.
- It is annealed and tested until free of internal strain, to withstand repeated washing with hot water.
- Reinforced at luer lock tip and barrel base, the points at which most breakage occurs.
- The cylinder-plunger fit is leak proof and meets the requirements of Federal Specification GG -S- 921b.
- Plunger is individually ground and fitted to barrel for smooth movement with no back flow.
- Barrel rim is flat on both sides to prevent rolling and is wide enough for convenient finger tip grip.
- The syringes are available in custom fit design. The custom fit syringes are uniquely numbered for matching piston and barrel.
- The metal luer lock tip meets the specification of American National Standards for Medical Materials luer taper fitting performance, HIMA MD 70.1 - 1983.
- The metal luer slip fitting is made from chrome-plated brass.
- The syringe is clearly marked with graduations of 0.2 ml and 1.0 ml. The graduations are permanently fused for lifetime legibility.

## Glass Properties:

| | | | |
|---|---|---|---|
| **Expansion coefficient:** | 52 +/- $10^{-7}$ / Centigrade | **Softening point:** | 785 @ degrees centigrade |
| **Density:** | 2.36g +/- 0.03g $CM^3$ | **Melting temperature:** | 1260 @ degrees centigrade |
| **Modulus of elasticity:** | 64 +/- $10^3$ $mm^{-2}$ | **Strain point:** | 525 @ degrees centigrade |
| **Water resistance:** | First Class | **Annealing point:** | 570 @ degrees centigrade |
| **Acid resistance:** | First Class | **Hardness:** | 7 |
| **Alkali resistance:** | First Class | **Color:** | Clear |